In the Claims:

1. (Currently Amended) A method of forming active regions, the method comprising the steps of:

applying a mask layer to an active layer, the active layer being on an underlying layer;

patterning the mask layer to define active regions and inactive regions of the active layer, the patterning using the active layer as an etch stop layer; and

oxidizing the inactive regions of the active layer such that the oxidized inactive regions contact the underlying layer ~~active regions of the active layer are electrically isolated from each other, the inactive regions being minimally etched~~.

2. (Original) The method of claim 1 wherein the active layer is an active layer of a silicon-on-insulator wafer.

3. (Previously Presented) The method of claim 1 further comprising partially removing the active layer in the inactive regions.

4. (Previously Presented) The method of claim 1 wherein the active layer is about 200 Å to about 1000 Å in thickness and further comprising partially removing the active layer in the inactive regions.

5. (Original) The method of claim 1 wherein the mask layer is about 10 Å to about 1500 Å in thickness.

6. (Cancelled)

7. (Previously Presented) The method of claim 1 wherein the active layer is about 25 Å to about 400 Å in thickness and substantially all of the active layer remains in the inactive regions.

8. (Original) The method of claim 1 wherein the mask layer comprises a material selected from the group consisting of oxide, silicon dioxide, silicon nitride, silicon oxynitride, high-K dielectric, or a combination thereof.

9. (Previously Presented) The method of claim 1 further comprising removing the mask layer on the active layer after the oxidizing.

10. (Original) The method of claim 1 wherein the active layer is formed from a material selected from the group consisting of silicon, germanium, silicon-germanium, and combinations thereof.

11. (Original) The method of claim 1 wherein the step of oxidizing is performed at about 700° C to about 1200° C.

12. (Original) The method of claim 1 wherein the step of oxidizing is performed by one or more steps of annealing by a furnace anneal or rapid thermal anneal process.

13. (Original) The method of claim 1 wherein the step of oxidizing is performed by one or more steps of annealing by a furnace anneal or rapid thermal anneal process at a temperature about 500° C to about 1250° C.

14. (Original) The method of claim 1 wherein the step of oxidizing creates an oxidation layer about 25 Å to about 800 Å in thickness.

15. (Original) The method of claim 1 wherein the step of oxidizing is performed with an ambient content comprising O_2, H_2O, NO, or some combination thereof.

16. (Previously Presented) A method of forming an active region, the method comprising:

applying a mask layer onto an active layer of a silicon-on-insulator (SOI) wafer, the SOI wafer having a substrate layer, the active layer and an insulator layer therebetween;

patterning the mask layer to expose areas of the active layer;

etching the SOI wafer such that the exposed areas of the active layer are partially removed without exposing the insulator layer, such that 25Å to 400Å of the active layer remains in the etched regions; and

oxidizing the SOI wafer such that oxidized areas of the active layer extend through to the insulator layer.

17. (Cancelled)

18. (Original) The method of claim 16 wherein the step of patterning the mask layer is performed by utilizing a photoresist.

19. (Original) The method of claim 16 wherein the mask layer comprises a material selected from the group consisting of oxide, silicon dioxide, silicon nitride, silicon oxynitride, high-K dielectric, or a combination thereof.

20. (Original) The method of claim 16 wherein the mask layer comprises a silicon dioxide layer about 10 to 200 Å in thickness and a silicon nitride layer about 20 to 1000 Å in thickness.

21. (Original) The method of claim 16 wherein the step of oxidizing is performed at about 500° C to about 1250° C.

22. (Original) The method of claim 16 wherein the step of oxidizing is performed with an ambient content comprising O_2, H_2O, NO, or some combination thereof.

23. (Original) The method of claim 22 wherein the step of oxidizing is performed by one or more steps of annealing by a furnace anneal or a rapid thermal anneal process at a temperature about 500° C to about 1250° C.

24. (Previously Presented) The method of claim 16 further comprising removing the mask layer after oxidizing the SOI wafer, through a wet-dip process.

25. (Original) The method of claim 16 wherein the active layer is formed from a material selected from the group consisting of silicon, germanium, silicon-germanium, and combinations thereof.

26. (Previously Presented) The method of claim 16 wherein the step of etching includes removing exposed areas of the active layer such that about 25 Å to about 400 Å of the active layer remains.

27. (Original) The method of claim 16 wherein the step of oxidizing results in an oxidation layer about 25 Å to about 800 Å in thickness.

28. (Currently Amended) A method of forming active regions, the method comprising:

applying a mask layer onto an active layer of a silicon-on-insulator (SOI) wafer, the SOI

wafer having the active layer, a substrate layer, and an insulator layer between the active layer and the substrate layer;

patterning the mask layer to identify active regions and inactive regions of the active layer using the active layer as an etch stop; and

oxidizing the SOI wafer such that oxidized portions of the active layer in the inactive regions extend through to the insulator layer, the insulator layer not being exposed in the inactive regions~~, the inactive regions being substantially not etched~~.

29. (Original) The method of claim 28 wherein the step of patterning the mask layer is performed by utilizing a photoresist.

30. (Original) The method of claim 28 wherein the mask layer comprises one or more layers comprising a material selected from the group consisting of oxide, silicon dioxide, silicon nitride, silicon oxynitride, high-K dielectrics, or a combination thereof.

31. (Original) The method of claim 28 wherein the mask layer comprises a silicon dioxide layer about 10 Å to about 200 Å in thickness and a silicon nitride layer about 20 Å to about 1000 Å in thickness.

32. (Original) The method of claim 28 wherein the active layer is about 25 Å to about 400 Å in thickness.

33. (Original) The method of claim 28 wherein the step of oxidizing results in an oxidation layer about 25 Å to about 800 Å in thickness.

34. (Previously Presented) The method of claim 28 wherein the step of applying a mask layer includes applying a photoresist mask on the mask layer.

35. (Previously Presented) The method of claim 28 further comprising removing the mask layer after etching the active layer.

36. (Original) The method of claim 28 wherein the active layer is formed from a material selected from the group consisting of silicon, germanium, silicon-germanium, and combinations thereof.

37. (Original) The method of claim 28 wherein the step of oxidizing is performed with an ambient content comprising O_2, H_2O, NO, or some combination thereof.

38. (Original) The method of claim 28 wherein the step of oxidizing is performed by one or more steps of annealing by a furnace anneal or a rapid thermal anneal process at a temperature about 500° C to about 1250° C.